

THE SHERWIN-WILLIAMS COMPANY Environmental, Health & Regulatory Services 101 Prospect Avenue NW Cleveland, Ohio 44115-1075 Facsimile: (216) 566-2730

June 18, 2008

Mr. Ray Klimcsak U.S. Environmental Protection Agency – Region 2 290 Broadway 19<sup>th</sup> Floor New York, New York 10007-1866

RE: Response to Comments - Submission of Sediment Sampling Results and Proposal to Conduct Deep Sediment Characterization – Kirkwood Lake AOC Index Number: No. II CERCLA-02-99-2035
Gibbsboro Borough, Voorhees Township and Lindenwold Borough, New Jersey

Dear Mr. Klimcsak:

On April 18, 2008 the Sherwin-Williams Co. submitted to the United States Environmental Protection Agency (EPA) Region II New Jersey Remediation Branch the Submission of Sediment Sampling Results and Proposal to Conduct Deep Sediment Characterization – Kirkwood Lake. The EPA provided comments to Sherwin-Williams on June 5, 2008. The EPA stated that its comments also incorporated comments from the New Jersey Department of Environmental Protection (NJDEP). This letter responds to the EPA and NJDEP comments. Attached to this letter is a revised Submission of Sediment Sampling Results and Proposal to Conduct Deep Sediment Characterization – Kirkwood Lake that has been amended to address the comments.

For clarity purposes, the EPA comment is presented in italics, and the response follows.

## **General Comments**

1. If the proposed sampling reveals the presence of contamination within the coarsegrained material, EPA will request additional sediment sampling along the Kirkwood Lake Transects previously sampled in 2007.

Response: Sherwin-Williams acknowledges this comment and, if contamination is found in the deeper sediment, will submit to the EPA a work plan to delineate the contamination and collect samples from other locations along the Kirkwood Lake transects that were sampled in 2007.

2. Throughout the Draft Work Plan, varying terms are used to describe the "deeper/coarse-grained" sediment layer. They range from: coarse-grained sand and silt (page 2); deeper coarser-grained silt and sand (page 2); deep(er) sediments (page 2); deeper coarser-grained sand and silt sediment (page 2); EPA is requesting

that one term be selected and used throughout the Work Plan.

Response: The following nomenclature will be used when discussing the sediment in Kirkwood Lake:

When discussing the fine-grained sediment that generally represents the upper sediment layer in the lake, the term "fine-grained organic" material or layer will be used.

When discussing the sediment that is present beneath the fine-grained organic layer, and where a grain size analysis of the deeper sediment has not yet been performed, the term "deeper coarse-grained" material will be used.

When discussing the sediment that is present beneath the fine-grained organic layer, and where a grain size analysis has been conducted, the term "deeper coarse-grained (soil type)" material will be used. For example, if it is determined that the deeper coarse-grained material in Kirkwood Lake is primarily sand and gravel, the term used would be "deeper coarse-grained sand and gravel material".

The work plan has been amended to reflect this nomenclature.

3. EPA concurs with the proposal by the SWC to submit a more comprehensive Kirkwood Lake (data) report, once the additional sediment sampling is completed.

Response: Sherwin-Williams acknowledges the comment.

## **Specific Comments**

1. Page 2, Scope of Work – Please revise the last sentence of the first paragraph to read, "The 2007 Kirkwood Lake sediment and soil sample locations are depicted in Figure 1".

Response: The requested change to the document has been made.

2. Page 2, Scope of Work – Please revise the first sentence of the second paragraph to read, "The EPA approved 2007 Kirkwood Lake Work Plan stated that, after review of the results from the fine-grained material, Sherwin-Williams.....".

Response: The requested change to the document has been made.

3. Page 2, Sediment Sampling Results – Please reference the appropriate source of the sediment and soil screening criteria.

Response: Sherwin-Williams has previously proposed to the EPA the use of screening criteria to both identify COPCs at the Gibbsboro sites and to determine whether vertical and horizontal delineation has been achieved. These screening criteria were initially proposed to the EPA in a January 2005 letter to Ms. Carole Petersen in which the

Strategic Sampling concept for Hilliard Creek and the other Gibbsoro sites was introduced. The screening criteria for soil were the more stringent of the EPA Region 9 Preliminary Remediation Goals (PRGs) and the NJDEP Residential Direct Contact Soil Cleanup Criteria. For the non-residential subareas, a combination of NJDEP and other ecological screening criteria were used. For sediment, these were usually a published Low Effects Level (LEL). References to these screening criteria have been added to the document.

4. Page 2, Sediment Sampling Results – Please provide the rationale as to why the information generated from the grain size analysis is not used to provide a quantitative indication of the composition of the sediment, but the ratio of percent solids and total organic carbon values is used to provide a qualitative indication.

Response: It was not Sherwin-Williams' intent to document the composition of the sediment, but rather to draw a distinction between sediment that was most likely collected from the fine-grained organic material and sediment that was most likely collected from the deeper coarse-grained material. This distinction was used to illustrate an observation that the highest concentrations of metals and other constituents were found in the sediment that contained a high organic carbon fraction and low percent solids.

The grain size analyses could have been used to compare the sediment types, and the results would have been similar to the comparison made using the total organic carbon levels and percent solids. That is, samples with higher percentages of gravel and medium and coarse sands would be more likely to have been collected from the deeper coarse-grained material than would samples containing high levels of silts and clays. The evaluation would not, however, been any less qualitative than the comparison of the sediment types that was performed using the organic carbon and percent solids measurements.

The work plan has been revised to reflect the fact that the organic carbon and percent solids measurements were used to illustrate the similar sediment type from which the samples were obtained, rather than to document the composition of the sediment.

5. Page 3, Sediment Physical Characteristics – The three samples (KWDD0052AA-AB, KKWDD0059, and KWDD0066AA-AB) used as examples of "coarse-grained material" which contained significantly higher solids percentages (80% – 98%) and an organic carbon content of one percent or less (and incidentally had concentrations which were below screening criteria), also happened to be collected from the ends of transects. As it was earlier stated in the Draft Work Plan (and later on Page 4) that it appears that there is a relatively well-defined center channel which runs north-south along the length of the lake, then these three samples do not lend themselves to being a good indication of locations where contamination would be expected. The proposed sampling within the coarse-grained material will confirm this.

Response: Sherwin-Williams acknowledges the comment.

6. Page 3, Constituents Present in Sediment – Please amend the third sentence of the third paragraph to read, "These metals were found in all sample intervals below the 0.0 – 0.5 ft. intervals at levels above screening criteria."

Response: The requested change to the document has been made.

7. Page 5, Supplemental Characterization Proposal – Please note, EPA has not narrowed down a list of contaminants of potential concern (COPCs); therefore, statements/remarks on COPCs is premature. In addition, the X-Ray Fluorescence (XRF) screening procedures being proposed are only focusing on the compounds lead and arsenic; these are not the only metals which would be considered COPCs.

Response: Sherwin-Williams acknowledges the comment. References to "COPCs" have been replaced with "metals". The change will also address the USEPA comment that other metals may be COPCs.

8. For transect KWT-50, the contour between the fine-grained material and the coarse-grained material appears to be incorrect from samples KWDD0067 to KWDD0072. The sample intervals for locations KWDD0069 and KWDD0071 appear to have been placed at the top of the fine-grained material layer. However, based on their percent solids value (48% and 78.7%) and total organic carbon (TOC) values (75,500 mg/kg and 4,240 mg/kg), the samples seem to have been collected at least partly, in the coarse-grained material layer. Therefore, the "top" of the coarse-grained material layer "line" should be depicted as being more rounded, with these points "sitting on" or at least much closer to that line.

Response: Figure 2B has been revised to reflect the comment.

9. Numerous sediment samples along KWT transects 62, 66, and 70 analyzed for arsenic resulted in rejections, please provide the reasoning for this.

Response: The analytical for As were rejected (R) for sediment collected from location IDs KWDD0097 through 0107. All these samples were collected on October 30, 2007 and include both shallow samples (0.0 to 0.5 ft interval) and those collected at depth just above the underlying coarse-grained material.

The detections of arsenic were rejected due to high recovery in the matrix spike analysis. The recovery was >200%, and it was concluded that this recovery was due to matrix effect. The suspected matrix effect was supported by an acceptable post-digestion spike analysis. The concentrations originally reported by the lab would be erroneous due to this matrix effect.

10. EPA is requesting the following modifications to the proposed sediment sampling locations made by the SWC:

TRANSECT	BORING	LOCATION IN LAKE
KWT-1	Add a new boring in the middle of transect	Center
KWT-2	KWDD0005, instead: KWDD0004	Center
KWT-6	KWDD0012	Center
KWT-10	KWDD0018	Intermediate
KWT-15	KWDD0022	Center
	(add) KWDD0024	Shore
KWT-20	KWDD0025	Shore
	KWDD0028	Intermediate
KWT-23	KWDD0032	Center
	KWDD0036	Shore
KWT-29	KWDD0041	Intermediate
	(add) KWDD0038	Intermediate
KWT-35	KWDD0043	Shore
	KWDD0047, instead: KWDD0048	Center
KWT-40	KWDD0055, instead: KWDD0056	Center
KWT-46	KWDD0064, instead: KWDD0065	Intermediate
	(add) KWDD0060	Intermediate
KWT-50	KWDD0067	Shore/Intermediate
	KWDD0073	Center
KWT-54	KWDD0080	Intermediate
	KWDD0085	Shore
KWT-58	KWDD0089	Center
KWT-62	KWDD0096, instead: KWDD0097	Intermediate
	(add) KWDD0093	Shore
KWT-66	KWDD0101	Center
KWT-70	KWDD0106	Center
	(add) KWDD0104	Shore

Response: The proposed sample locations have been revised to address the EPA comment. The table in the work plan has been amended and Figures 2A and 2B have been revised.

Should you have any other recommendations or if you have any questions or comments, please do not hesitate to contact me at (216) 566-1794 or via e-mail at <a href="mailto:mlcapichioni@sherwin.com">mlcapichioni@sherwin.com</a>.

Sincerely,

Mary Low Capichion

Mary Lou Capichioni Director Remediation Services

## Attachment

cc: C. Stern, USFWS

J. Doyon, NJDEP (4 copies)

J. Gerulis, SWC (w/o encl)

A. Danzig, Esq., SWC (w/o encl)

S. Peticolas, Esq., Gibbons P.C. (w/o encl)

S. Jones, Weston

H. Martin, ELM

S. Clough, Weston